

CLAIMS AMENDMENTS

1-19. (PREVIOUSLY CANCELLED NON-ELECTED)

20-22. (CURRENTLY CANCELLED)

23. (CURRENTLY AMENDED)

An apparatus for evaluating the condition of a patient after stroke comprising:

a mask;

a blower to supply breathable gas at a pressure above atmospheric to said mask;

a flow sensor to generate a flow signal indicative of the patient's airflow; and

a computer to process said flow signal and control said blower wherein said computer is programmed with instructions for:

controlling said blower to deliver breathable gas at a pressure above atmospheric to a patient; and

calculating a stroke indicator from said flow signal, said stroke indicator representing information about the patient's condition,

wherein said instructions for calculating said stroke indicator control an analysis of said flow signal to determine an occurrence of central apnea, and

wherein said instructions for calculating said stroke indicator control an analysis of said airflow to determine an occurrence of obstructive apnea, and

~~The apparatus of claim 22~~ wherein said instructions for calculating said stroke indicator control a calculation of said stroke indicator as a function of a ratio of said occurrence of central apnea and said occurrence of said obstructive apnea.

24. (ORIGINAL) The apparatus of claim 23 wherein said computer is further programmed with instructions for recording said stroke indicator over time.

25. (ORIGINAL) The apparatus of claim 24 wherein said computer is further programmed with instructions for controlling an analysis of said stroke indicator over time to determine a change in said stroke indicator.

26. (CURRENTLY AMENDED) An apparatus for evaluating the condition of a patient after stroke comprising:

a mask;

a blower to supply breathable gas at a pressure above atmospheric to said mask;

a pressure sensor to generate a pressure signal indicative of the pressure delivered to the patient; and

a computer to process said pressure signal and control said blower wherein said computer is programmed with instructions for:

controlling said blower to deliver breathable gas at a pressure above atmospheric to a patient; and

calculating a stroke indicator, said stroke indicator representing information about the patient's condition.

The apparatus of claim 20 wherein said instructions for calculating said stroke indicator control a determination of a first percentile pressure from pressure delivered to a patient in a current session and a comparison of said first percentile pressure with a second percentile pressure determined from pressure delivered to said patient in a prior session.

27. (ORIGINAL) The apparatus of claim 26 wherein said first and second percentile pressures are 95th percentile pressures.

28. (CURRENTLY AMENDED) The apparatus of claim ~~20~~26 with further instructions for recording said stroke indicator in a database of stroke indicators for multiple patients.

29. (CURRENTLY AMENDED) The apparatus of claim ~~20~~26 with further instructions for identifying subsequent treatment based upon said stroke indicator.

30. (ORIGINAL) The apparatus of claim 29 wherein said treatment is a form of CPAP therapy.

31. (ORIGINAL) The apparatus of claim 29 wherein said treatment is a change in drug therapy.

32. (CURRENTLY AMENDED) The apparatus of claim 20-23 with further instructions for evaluating changes in said stroke indicator to assess the efficacy of an administered drug.

33. (ORIGINAL) The apparatus of claim 32 wherein said instructions for evaluating said stroke indicator store said stroke indicator in a database of patient information.

34-35. (CURRENTLY CANCELLED)

36. (CURRENTLY AMENDED) An apparatus for evaluating the condition of a patient after stroke comprising:

a mask;

a blower to supply breathable gas at a pressure above atmospheric to said mask;

a flow sensor to generate a flow signal indicative of the patient's airflow; and

a processor to process said flow signal and control said blower wherein said processor is configured and adapted for:

controlling said blower to deliver breathable gas at a pressure above atmospheric to a patient; and

calculating a stroke indicator from said flow signal, said stroke indicator representing information about the patient's condition. ~~The apparatus of claim 35 wherein said stroke indicator is a function of a ratio of a number of occurrences of central apnea and a number of occurrences of obstructive apnea.~~

37-39. (CURRENTLY CANCELLED)

40. (CURRENTLY AMENDED) An apparatus for evaluating the condition of a patient after stroke comprising:

a means for supplying breathable gas at a pressure above atmospheric to a patient;

a flow sensor means to generate a flow signal indicative of the patient's airflow; and
a computer means to process said flow signal and control said blower wherein said
computer is programmed with instructions for:

controlling said blower to deliver breathable gas at a pressure above atmospheric to a
patient; and

calculating a stroke indicator from said flow signal, said stroke indicator representing
information about the patient's condition.

wherein said instructions for calculating said stroke indicator control an analysis of said
flow signal to determine an occurrence of central apnea and said instructions calculate said
stroke indicator as a function of said occurrence of central apnea, and

wherein said instructions for calculating said stroke indicator control an analysis of said
airflow to determine an occurrence of obstructive apnea and said instructions calculate said
stroke indicator as a function of said occurrence of obstructive apnea, and

~~The apparatus of claim 39~~ wherein said instructions for calculating said stroke indicator
control a calculation of said stroke indicator as a function of a ratio of said occurrence of central
apnea and said occurrence of said obstructive apnea.

41. (CURRENTLY AMENDED) The apparatus of claim 40 wherein said computer means
is further programmed with instructions for recording said stroke indicator over time.

42. (CURRENTLY AMENDED) The apparatus of claim 41 wherein said computer means
is further programmed with instructions for controlling an analysis of said stroke indicator over
time to determine a change in said stroke indicator.

43. (CURRENTLY AMENDED) An apparatus for evaluating the condition of a patient after
stroke comprising:

a means for supplying breathable gas at a pressure above atmospheric to a patient;

a pressure sensor means to generate a pressure signal indicative of the pressure
delivered to the patient; and

a processing means to process said pressure signal and control said blower wherein

said processor is programmed with instructions for:

controlling said blower to deliver breathable gas at a pressure above atmospheric to a patient; and

calculating a stroke indicator, said stroke indicator representing information about the patient's condition.

~~The apparatus of claim 37~~ wherein said instructions for calculating said stroke indicator control a determination of a first percentile pressure from pressure delivered to a patient in a current session and a comparison of said first percentile pressure with a second percentile pressure determined from pressure delivered to said patient in a prior session.

44. (ORIGINAL) The apparatus of claim 43 wherein said first and second percentile pressures are 95th percentile pressures.

45. (CURRENTLY AMENDED) The apparatus of claim ~~37~~43 with further instructions for recording said stroke indicator in a database of stroke indicators for multiple patients

46. (CURRENTLY AMENDED) The apparatus of claim ~~37~~43 with further instructions for identifying subsequent treatment based upon said stroke indicator.

47. (ORIGINAL) The apparatus of claim 46 wherein said treatment is a form of CPAP therapy.

48. (ORIGINAL) The apparatus of claim 46 wherein said treatment is a change in drug therapy.

49. (CURRENTLY AMENDED) The apparatus of claim ~~37~~43 with further instructions for evaluating changes in said stroke indicator to assess the efficacy of an administered drug.

50. (ORIGINAL) The apparatus of claim 49 wherein said instructions for evaluating said stroke indicator store said stroke indicator in a database of patient information.

51-52. (CURRENTLY CANCELLED)

53. (CURRENTLY AMENDED) An apparatus for evaluating the condition of a patient after stroke comprising:

a means for supplying breathable gas at a pressure above atmospheric to a patient;
a flow sensor means to generate a flow signal indicative of the patient's airflow; and
a means for processing said flow signal and controlling said blower wherein said
means for processing is configured and adapted for:
controlling said blower to deliver breathable gas at a pressure above atmospheric to a
patient; and
calculating a stroke indicator from said flow signal, said stroke indicator representing
information about the patient's condition.

~~The apparatus of claim 52 wherein said stroke indicator is a function of a ratio of a number of occurrences of central apnea and a number of occurrences of obstructive apnea.~~

54-56. (CURRENTLY CANCELLED).

58. (CURRENTLY AMENDED) The medium of claim ~~57~~72 further comprising stored instructions for controlling execution of the step of recording said stroke indicator over time.

59. (CURRENTLY AMENDED) The medium of claim 58 further comprising stored instructions for controlling execution of the step of analyzing said stroke indicator over time to determine a change in said stroke indicator.

60. (CURRENTLY AMENDED) A medium with stored instructions for use by an electronic processor to control the evaluation of the condition of a patient after stroke, said instructions controlling the execution of the step of:
calculating a stroke indicator from a measure of pressure delivered to a patient, said
pressure measured during the delivery of a pressure of breathable gas above atmospheric, said
stroke indicator representing information about the patient's condition.~~The medium of claim 54~~
wherein said ~~determining~~ calculating step includes analyzing said ~~airflow~~ measure of

pressure to determine a first percentile pressure from pressure delivered to a patient in a current session and comparing said first percentile pressure with a second percentile pressure from pressure delivered to said patient in a prior session.

61. (ORIGINAL) The medium of claim 60 wherein said first and second percentile pressures are 95th percentile pressures.

62. (ORIGINAL) The medium of claim 59 or 61 wherein said stroke indicator indicates a degree of neuro-recovery of the patient.

63. (CURRENTLY AMENDED) The medium of claim ~~57~~ 59 or 61 wherein said stroke indicator indicates a type of stroke that the patient has suffered.

64. (CURRENTLY AMENDED) The medium of claim ~~54~~ 72 with further instructions for recording said stroke indicator in a database of stroke indicators for multiple patients.

65. (CURRENTLY AMENDED) The medium of claim ~~54-60~~ or 72 with further instructions for identifying subsequent treatment based upon said stroke indicator.

66. (ORIGINAL) The medium of claim 65 wherein said treatment is a form of CPAP therapy.

67. (ORIGINAL) The medium of claim 65 wherein said treatment is a change in drug therapy.

68. (CURRENTLY AMENDED) The medium of claim ~~54-60~~ or 72 with further instructions for evaluating changes in said stroke indicator to assess the efficacy of an administered drug.

69. (ORIGINAL) The medium of claim 66 wherein said instructions for evaluating said stroke indicator store said stroke indicator in a database of patient information.

70-71. (CANCELLED)

72. (CURRENTLY AMENDED) A medium with stored instructions for use by an electronic processor to control the evaluation of the condition of a patient after stroke, said instructions for controlling the execution of the step of:

calculating a stroke indicator from a measure of airflow of a patient, said airflow measured during the delivery of a pressure of breathable gas above atmospheric, said stroke indicator representing information about the patient's condition.

~~The medium of claim 71~~ wherein said stroke indicator is a function of a ratio of a number of occurrences of central apnea and a number of occurrences of obstructive apnea.

73-79. (PREVIOUSLY CANCELLED NON-ELECTED)

80. (ORIGINAL) An apparatus for evaluating the condition of a patient after stroke comprising:

a mask;

a blower to supply breathable gas at a pressure above atmospheric to said mask;

a flow sensor to generate a flow signal indicative of the patient's airflow; and

a computer to process said flow signal and control said blower wherein said computer is programmed with instructions for:

during a first period delivering breathable gas at a pressure above atmospheric to the patient;

determining a first index as a function of the total number of hypopneas and apneas experienced by the patient during said first period;

comparing said first index to a threshold value and if said first index exceeds said threshold value then selecting between ~~forms~~ different types of CPAP treatment.

81. (CURRENTLY AMENDED) The apparatus of claim 80 wherein said computer is programmed with instructions for ~~further comprising the step of~~ querying for sleep history information about a patient, wherein said delivering breathable gas is based upon information from said querying.

82. (CURRENTLY AMENDED) The apparatus of claim 80 wherein said computer is programmed with instructions for ~~further comprising the step of~~ determining a second index as a ratio of the number of central apneas and the number of obstructive apneas experienced by said patient during said first period, wherein said step of selecting between forms of CPAP treatment is a function of said second index.

83. (ORIGINAL) The apparatus of claim 82 wherein said threshold value is about 20.

84. (ORIGINAL) The apparatus of claim 83 wherein said forms of CPAP comprise CPAP and bi-level CPAP.

85. (ORIGINAL) The apparatus of claim 84 wherein said CPAP is selected when said second index indicates a low occurrence of central apnea.

86. (CURRENTLY CANCELLED)

87. (CURRENTLY AMENDED) An apparatus for evaluating the condition of a patient after stroke comprising:

a means for supplying breathable gas at a pressure above atmospheric to a patient;

a flow sensor means to generate a flow signal indicative of the patient's airflow; and

a computer means to process said flow signal and control said blower wherein said computer is programmed with instructions for:

during a first period delivering breathable gas at a pressure above atmospheric to the patient;

determining a first index as a function of the total number of hypopneas and apneas experienced by the patient during said first period;

comparing said first index to a threshold value and if said first index exceeds said threshold value then selecting between ~~forms~~ different types of CPAP treatment.

88. (CURRENTLY AMENDED) The apparatus of claim 87 wherein said computer means is programmed with instructions for ~~further comprising the step of~~ querying for sleep history information about a patient, wherein said delivering breathable gas is based upon information from said querying.

89. (CURRENTLY AMENDED) An apparatus for evaluating the condition of a patient after stroke comprising:

a means for supplying breathable gas at a pressure above atmospheric to a patient;

a flow sensor means to generate a flow signal indicative of the patient's airflow; and

a computer means to process said flow signal and control said blower wherein said computer is programmed with instructions for:

during a first period delivering breathable gas at a pressure above atmospheric to the patient;

determining a first index as a function of the total number of hypopneas and apneas experienced by the patient during said first period;

comparing said first index to a threshold value and if said first index exceeds said threshold value then selecting between forms of CPAP treatment.

~~The apparatus of claim 87 wherein said computer means is programmed with instructions for further comprising the step of~~ determining a second index as a ratio of the number of central apneas and the number of obstructive apneas experienced by said patient during said first period, wherein said step of selecting between forms of CPAP treatment is a function of said second index.

90. (ORIGINAL) The apparatus of claim 89 wherein said threshold value is about 20.

91. (CURRENTLY AMENDED) The apparatus of claim 90 wherein said forms of CPAP treatment comprise CPAP and bi-level CPAP.

92. (ORIGINAL) The apparatus of claim 91 wherein said CPAP is selected when said second index indicates a low occurrence of central apnea.

93. (CURRENTLY CANCELLED)

94. (CURRENTLY AMENDED) A medium ~~for~~ with storing instructions for use by an electronic processor for controlling the evaluation of the condition of a patient after stroke, said instructions for controlling the execution of the steps of:

determining a first index as a function of the total number of hypopneas and apneas experienced by a patient from a first period of delivered breathable gas at a pressure above atmospheric;

comparing said first index to a threshold value and if said first index exceeds said threshold value then selecting between ~~forms~~ different types of CPAP treatment.

95. (CURRENTLY AMENDED) The medium of claim 94 further comprising instructions for controlling the execution of the step of querying for sleep history information about a patient, wherein said delivering breathable gas is based upon information from said querying.

96. (CURRENTLY AMENDED) The medium of claim 94 further comprising instructions for controlling the execution of the step of determining a second index as a ratio of the number of central apneas and the number of obstructive apneas experienced by said patient during said first period, wherein said step of selecting between forms of CPAP treatment is a function of said second index.

97. (ORIGINAL) The medium of claim 96 wherein said threshold value is about 20.

98. (ORIGINAL) The medium of claim 97 wherein said forms of CPAP comprise CPAP and bi-level CPAP.

99. (ORIGINAL) The medium of claim 98 wherein said CPAP is selected when said second index indicates a low occurrence of central apnea.

100. (CURRENTLY CANCELLED)

101-103. (PREVIOUSLY CANCELLED NON-ELECTED)

~~403~~104. (CURRENTLY AMENDED) A medium ~~for with storing~~ instructions for use by an electronic processor for controlling the derivation of a stroke indicator, said stored instructions for controlling the execution of the steps of:

calculating a stroke indicator index from a comparison of a number of central and obstructive apneas determined from data representing respiratory airflow and patient effort from a first time period, said stroke indicator index representing information about the patient's recovery from stroke.